

RADIOACTIVE AIR EMISSIONS MANAGEMENT PLAN FOR LANSCE

Purpose This Air Quality Group procedure specifies LANSCE operational and NESHAP dose milestones and LANL management actions to assure that LANL does not exceed the 10-mrem/year standard of 40 CFR 61, Subpart H.

Scope This procedure applies only to the dose from LANSCE (TA-53) gaseous airborne emissions and generally does not apply to other LANL airborne emissions, unless those other LANL emissions are likely to cause LANL to exceed 10 mrem/year.

In this procedure This procedure addresses the following major topics:

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Signatures

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07/14/98

General information about this procedure

Attachments This procedure has one attachment: DOE/LANL Agreement Signature Page.

History of revision This table lists the revision history and effective dates of this procedure.

Revision	Date	Description Of Changes
0	6/27/95	Superseded agreement dated 1/12/93. Changed weekly reporting to monthly. Eliminated automatic cessation of operations at 8.5 mrem.
1	2/5/97	Required monthly report to DOE shifted to higher-dose milestone to reduce excessive reporting. Daily emissions reporting to DOE changed to weekly. LC/GL eliminated from receiving reports. Recast into ESH-17 procedure format.

Who requires training to this procedure? The following personnel require training before implementing this procedure:

- ESH-17 group members assigned to perform calculations or prepare reports supporting this procedure.
- LANSCE personnel who provide emissions information to ESH-17.

Training method The training method for this procedure is “self-study” (reading) and is documented according to ESH-17-024 or the LANSCE training procedure.

General information about this procedure, continued

Definitions specific to this procedure

LANSCE Operation: Whenever accelerator beam of any magnitude is being delivered to the beam switchyard. This definition is appropriate because measurable gaseous emissions can not be produced until this condition is met.

Month: Contiguous time periods corresponding roughly to the calendar months but which may be as short as 2 weeks or as long as 6 weeks. Each month will begin on a Monday and end on a Sunday. ESH-17 and LANSCE will formally agree on the weeks assigned to each operating month prior to the beginning of the LANSCE operating cycle to which the months apply. These assignments may be modified at any time provided all weeks are accounted for.

References

The following documents are referenced in this procedure:

- 40 CFR 61, Subpart H, "National Emission Standards for Emissions of Radionuclides Other than Radon from Department of Energy Facilities"
 - ESH-17-024, "Personnel Training"
 - ESH-17-501, "Dose Assessment Using CAP88"
 - ESH-17-608, "Monthly Curie Limit Projection for LANSCE"
 - ESH-17-609 "Monthly Dose Projection for LANSCE"
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Note

Actions specified within this procedure, unless preceded with "should" or "may," are to be considered mandatory (i.e., "shall").

Milestones, actions, and reports

Overview

This section provides the LANL actions at various operational and environmental dose points. The key management information reports and meetings used to administratively control emissions within 10 mrem are the following:

1. Preoperational LANSCE operating-cycle dose *projections*.
 2. Monthly dose *determinations* based on *actual* emissions.
 3. When the *actual* 12-month dose exceeds 5 mrem for the most recent past month, monthly updated dose *projections*.
 4. When the 12-month dose is *projected* to exceed 7 mrem during the current or next month, tracking of *actual* emissions against an administrative emission limit based on 8.5 mrem.
 5. When the 12-month dose is *projected* to exceed 8 mrem during the current or next month, a LANL internal meeting to evaluate maximum expected dose and proposed actions.
 6. When the 12-month dose is *projected* to exceed 8.5 mrem during the current or next month, a LANL/DOE meeting to determine actions.
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Milestones and actions

Based on each milestone below, carry out the specified actions.

Milestone	Action
Prior to LANSCE operating cycle	<p>a. LANSCE provides ESH-17 with estimated monthly emissions (or doses based on ESH-17-supplied dose conversion factors) for the upcoming operating period and likely scenarios.</p> <p>b. ESH-17 prepares a memo to the TA-53 Facility Manager and DOE projecting the 12-month LANSCE dose by scenario for each month of the operating cycle.</p>

Milestones, actions, and reports, continued

LANSCe is operating.	<p>c. The LANSCE staff continuously monitors total stack emissions according to LANSCE stack monitoring procedures and provides ESH-17 with total stack emissions when available after the end of the month.</p> <p>d. Each month, after emissions data are available, ESH-17 calculates the LANSCE dose for the past 12 months using procedure ESH-17-501 and provides the information to the TA 53 Facility Manager.</p>
LANSCe 12-month MEI dose exceeds 5 mrem for the most recent past month.	<p>c-d. As above.</p> <p>e. LANSCE provides ESH-17 with an updated emissions projection for the current and following month (if scheduled to operate).</p> <p>f. Using ESH-17-609, ESH-17 projects the 12 month doses for the remainder of the current month and the next month using available actual emissions for prior months and projected emissions for the current and next month (if scheduled to operate). ESH-17 provides the information to the TA 53 Facility Manager.</p>
LANSCe 12-month MEI dose is <i>projected</i> to exceed 7 mrem during the current or next month .	<p>c-f. As above. DOE receives a copy of the projection specified in item f.</p> <p>g. Using ESH-17-608, ESH-17 projects an emissions limit (in curies), corresponding to a 12-month dose of 8.5 mrem for the month following the month when the dose is projected to exceed 7 mrem and provides the information to LANSCE (if scheduled to operate).</p> <p>h. If scheduled to operate, LANSCE tracks emissions to assure emissions corresponding to 8.5-mrem are not exceeded during the month following the month when the dose is projected to exceed 7 mrem.</p>

Milestones, actions, and reports, continued

LANSCCE 12-month MEI dose is <i>projected</i> to exceed 8 mrem during the current or next month.	<p>c-h. As above. DOE receives at least a weekly copy of the emissions tracking data specified in item h.</p> <p>i. LANSCE, ESH-17, and ESH-DO management representatives meet to determine if the 8.5 mrem administrative limit is likely to be exceeded and the appropriate proposed action if that condition occurs. DOE receives a copy of the meeting minutes.</p>
LANSCCE 12-month MEI dose is <i>projected</i> to exceed 8.5 mrem during the current or next month.	<p>c-h. As above.</p> <p>(Item i above should have occurred already and would not be repeated.)</p> <p>j. LANSCE, ESH-17, ESH-DO, LANL-DIR, and DOE management representatives meet to determine if continued LANSCE operation is appropriate.</p>

Records resulting from this procedure

Records

The following ESH-17 records generated as a result of this procedure are to be submitted **within two weeks of generation** to the ESH-17 records coordinator:

- Preoperational dose projection memo and supporting data.
- Monthly reports of actual dose, projected dose, and supporting data.
- Meeting minutes associated with 8- and 8.5-mrem projections.

The following LANSCE records generated as a result of this procedure are to be submitted **within two weeks of generation** to the LANSCE records coordinator:

- Emissions projections before and during operation.
- Emissions measurement data.

DOE/LANL AGREEMENT SIGNATURE PAGE

RADIOACTIVE AIR EMISSIONS MANAGEMENT PLAN FOR LANSCE

The undersigned LANL and DOE managers agree to the milestones and planned actions specified in this ESH-17-610, revision 1, procedure for managing LANSCE radioactive air emissions to assure LANL complies with the 10-mrem/year standard specified in 40 CFR 61.92 (Subpart H) for airborne radionuclide emissions.

Agreed to by _____
R. Werbeck, AOT-7 Group Leader, LANL _____
Date

Agreed to by _____
R. Ryder, TA-53 Facility Manager, LANL _____
Date

Agreed to by _____
S. Schriber, AOT Division Director, LANL _____
Date

Agreed to by _____
D. Stavert, ESH-17 Group Leader, LANL _____
Date

Agreed to by _____
D. Erickson, ESH Division Director, LANL _____
Date

Agreed to by _____
J. Jackson, Deputy Director, LANL _____
Date

Agreed to by _____
T. Todd, Area Office Manager, DOE/LAAO _____
Date

This agreement replaces the former agreement dated 6/27/95 and becomes effective on the “effective date” shown on the front of this procedure.